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REMARKS

The Office Action dated 11 August 2005 has been reviewed and the comments of the U.S. Patent Office have been considered. Claim 1 and 11 have been amended, and claims 2 -10 and 12-16 remain as originally presented. Thus, claims 1-16 are pending and are respectfully submitted for reconsideration by the Examiner.

Claims 1-16 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 4,961,403 to Kawaguchi et al. ("Kawaguchi") in view of U.S. Patent No. 6,306,056 to Moore. These rejections are respectfully traversed because Kawaguchi and Moore, whether considered alone or in combination, fail to teach or suggest the claimed invention as a whole, as recited in independent claims 1 and 11.

Kawaguchi shows an internal combustion engine 16 and a generator 20 that are mechanically coupled to each other via a shaft 22 and an engine crankshaft 18 (See column 3, lines 1-10). It is respectfully submitted that there is no teaching or suggestion that the Kawaguchi generator 20 could be used to drive the engine, especially during starting. There is also no teaching or suggestion as to how Kawaguchi decouples the generator from the engine after starting to avoid back fires and emission fumes. Finally there is no teaching or suggestion for a user input device, an ignition circuit, a battery source, a fuel supply circuit, or a speed sensor.

Moore shows two internal combustion engines and one electric motor/generator for propulsion of a vehicle. It is respectfully submitted that Moore fails to teach or suggest coupling the electric motor to one of the internal combustion engines. According to Moore, the three engines/motors provide increasing levels of propulsion to the vehicle. Moreover, it is respectfully submitted that there is no teaching or suggestion that Moore's generator 28 could be used to drive or start either of the internal combustion engines 12,18. And there is no teaching or suggestion as to how to decouple the generator from an engine after the engine starts so as to avoid back fires and emission fumes.

It is respectfully submitted that the Office Action fails to factually support a conclusion of obviousness including: (1) considering the scope and content of the prior art, (2) ascertaining the differences between the prior art and the claims in issue, and (3) resolving the level of ordinary skill in the pertinent art. Nor does the Office Action provide a reason why one having

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ordinary skill in the art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention, and would have been realistically motivated to modify a particular reference in a particular manner to arrive at a particular claimed invention. Section 2143.01 of the Manual of Patent Examining Procedure reminds us that in order to establish the requisite motivation, "clear and particular" factual findings must be made as to a specific understanding or specific technological principle that would have realistically compelled one having ordinary skill in the art to modify a particular reference to arrive at the claimed invention based upon facts - not generalizations.

The Office Action recognizes some of the shortcomings of both Kawaguchi and Moore. For the conclusion of obviousness, the Office Action points to the fact that the generator could be used to provide additional torque to assist the internal combustion engine during periods of operation when increased levels of torque are required. However, this alleged motivation fails to teach or suggest sizing the dynamoelectric machine sufficiently to allow it to be used as a starter for the internal combustion engine. It is respectfully submitted that there is also no teaching or suggestion of warming the internal combustion engine up prior to ignition and removing fuel for a period of time after turning off the dynamoelectric machine, so as to reduce emissions.

Thus, for at least any of the above reasons, it is respectfully submitted that the Office Action does not meet the established obviousness legal standard.

It is therefore respectfully submitted that Applicant's claimed range extender is so different in structure and means of operation from Kawaguchi that a person of ordinary skill in the art would have had no motivation from any of the cited references to modify Kawaguchi to create Applicant's invention. And it is submitted that the Office Action has not provided a sufficient rationale as to why a person of ordinary skill in the art would have been motivated by the teachings of Kawaguchi generator to form Applicant's claimed invention. It is therefore respectfully submitted, that independent claims 1 and 11 are patentably distinguishable from the cited references. Withdrawal of the rejections under 35 U.S.C. § 103(a) should be withdrawn, and independent claims 1 and 11 are allowable. Moreover, claims 2-10 and 12-16 depend, either directly or indirectly, from independent claims 1 and 11, respectively, and are therefore also allowable for at least the same reasons, as well as for the additionally recited features that further distinguish over Kawaguchi and Moore.

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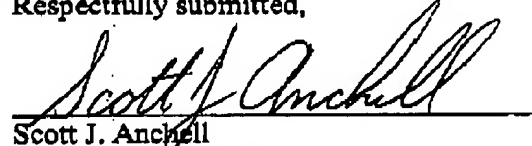
CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration of this Application and the prompt allowance of claims 1-16.

Should the Examiner feel that there are any issues outstanding after consideration of this reply, the Examiner is invited to contact Applicants' undersigned representative to expedite prosecution of the application.

EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account 08-1641. **This paragraph is intended to be a CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,



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